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The Role of Tourism Activities in Sustainable
Management of Common Pool Resources in a Northern
European Periphery Community in Sweden

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Abstract

The aim of this research is to analyze how tourist hosts in Gunnarsbyn, a rural community in northern Sweden, practice tourism and cooperate for sustainable use of common pool resources. The case study is descriptive of the infrastructural and demographic vulnerability involved in the livelihoods of many who work in the tourism industry in peripheral areas of Northern Europe. If cooperation in tourism in Gunnarsbyn is proved beneficial, it has the potential to empower sustainable development of the community. The analysis includes that the relevant variables involved in cooperation in this case study support a reinforcing relationship between i) learning and norm adopting individuals; ii) levels of reciprocity within the community; iii) cooperation and; iv) net benefits. Microsituational variables were identified by in-depth interviews that focused on their practice and understanding of the concept sustainable development. The broader contextual variables were identified with participatory qualitative system analysis using Causal Loop Diagrams. Analysis and comparison of the two categories of variables concluded that cooperation in tourism in Gunnarsbyn is beneficial and that tourism can function as the empowerment needed to activate drivers for sustainable development of Gunnarsbyn on a local level. This includes that the individuals are learning and reciprocal in developing a practice that is both sustainable for the community and environmentally friendly in general. They are adopting to limiting social conditions in their community and are confident that others in the community commit equally to meeting these challenges. Together they create community capital in projects and initiatives in tourism that have net benefits in the community, although they are small in scale and develop slowly. The main driver of this reinforcing relationship is the desire to sustain the community and the common interest of being able to continue living in the community and continue working with tourism. Standardization and centralization in national and municipal policies are the main limitations for sustainable development of this peripheral community, and for sustainable development of tourism as an employing industry in this area.

Key words: Sustainable tourism, common pool resources, communities, practice, cooperation

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Introduction

1.1 Aims

When addressing sustainability challenges it is important to recognize what variables contribute to sustainable development of each specific socio-ecological system. This thesis is an effort to contribute with a tourism case study to the theory *of conditional cooperation for sustainable use of common pool resources*, which advocates the perspective that “humans do not universally maximize short-term self-benefits and can cooperate to produce shared, long-term benefits” (Vollan & Ostrom, 2010, p. 923). The main aim of this research is to analyze how tourist hosts in Gunnarsbyn, a rural community in northern Sweden, understand and explain collective action for sustainable use of common pool resources in their tourism practice. The case study is descriptive of the infrastructural and demographic vulnerability involved in the livelihoods of many who work in the tourism industry in peripheral areas of Northern Europe. In order to broaden the sustainability context of the case study, four of the core questions of sustainability science posed by Kates et al. (2001) are integrated into the analysis.

Main research question: How do tourist hosts in Gunnarsbyn perceive their possibilities of producing shared sustainable benefits for their community?

Sub Research questions:

- Why are tourist hosts practicing tourism in the manner that they do today?
- How do the tourist hosts perceive common sustainability challenges?
- What systems of collaborative action are important for meeting common sustainability challenges in the community?
- What are the net benefits of tourism practice for the community?

1.2 Research Rationale

Most rural tourism activities depend highly on the existence of peripheral areas that contain vast areas of relatively unspoiled nature and low population density. Northern European periphery (NEP) areas contain vast landscapes that contain especially fragile ecosystems. Meanwhile NEP communities are often marginalized in policies and decision-making. Because of this, sustainable use of natural resources in NEP communities becomes a necessity to be able to make a living and maintain a good quality of life. Tourism has been adopted as a strategy to cope with geographic and demographic vulnerability in northern periphery areas. The problem with this strategy is that the tourism industry is also vulnerable in itself. A case study of sustainable tourism development should thus include both large-scale variables of global and national influences in the tourism industry and micro-situational variables of community development and tourism practice.

Tourism studies research in relations to common pool resources is an emerging research field (e.g. Briassoulis, 2002). Common pool resources are defined as those resources “for which exploitation by one user reduces the amount available for others, but for which exclusion of additional users is difficult or impossible” (Ostrom, 1990). Tourism activities are often practiced on a land that tourism companies do not hold property rights to or decision-making power over and are therefore subject to a dilemma situation where cooperation is needed. In addition, as phrased by Briassoulis (2002), natural resources are used by tourists in common with other tourists and for tourists in common with other activities by locals.

The purpose of this thesis is to integrate interdisciplinary thinking in tourism studies and sustainability science. It is an effort to fill a research gap in sustainability science identified both by Vollan & Ostrom (2010) and Kates et al. (2001), namely to identify characters of particular places and sectors in order to understand how stakeholders can produce shared, long-term benefits for their community. The thesis aims to introduce participatory qualitative systems analysis as an effective way to gather stakeholder’s perspectives on their situation in a manner that also is rewarding for participants themselves. The core questions of sustainability science posed by Kates et al. (2001)¹ were chosen because they focus on identifying conditions, dynamics and interactions involved with socio-ecological systems. Four of the most relevant ones are integrated in the analysis, nr 1, 2, 3 and 5.

This paper is also a contribution to research in tourism studies. Research in tourism studies has developed into a more trans-disciplinary approach through the concept of sustainable tourism (e.g. Swarbrooke, 1999, Gunn, 2002), which seeks to meet the economic, social and environmental needs of both tourists and host communities in a manner that does not compromise future needs. Despite of this, the

¹ Core questions of sustainability science posed by Kates et al. (2001) address: 1) the dynamic interactions between nature and society incorporated into models and conceptualizations of earth systems, human development and sustainability; 2) reshaping of nature-society interactions because of long-term consumption and population trends; 3) the vulnerability and resilience of nature-society systems; 4) effective and scientifically meaningful boundaries provided as warning for conditional risk for degradation of nature-society systems; 5) improved social capacity to guide interactions between nature and society towards more sustainable paths; 6) integration of monitoring and reporting on environmental and social conditions into transition toward sustainability; and 7) adaptive planning and societal learning.

use of systems analysis in tourism studies is limited. Sustainable tourism seeks to bring the discussion of common natural resources to thinking in terms of ecosystems and recognizing man as an element within the ecosystem, rather than regarding nature as self-contained compartments (such as wildlife or rainforests) that function as inputs into tourism systems (Swarbrooke, 1999).

1.3 Limitations and system boundaries

The ontological perspective of this thesis assumes that people simultaneously see themselves as actors within larger and smaller systems at all times. Tourism is a sector that is clearly depended on an outside market and is therefore practiced on community level, regional level and international level simultaneously. Thus, when describing a system of local practice in tourism, it is impossible to exclude outside complications entirely. On the other hand the scope of this study is restricted to represent the perspective of the tourist hosts specifically. The components that are described are thus limited to the accounts of the tourist hosts and what they see as their system in everyday life. Due to this, the system boundaries were set on the community and these specific actors while other stakeholder perspectives were not represented. Also this was done to avoid established assumptions about what sustainable development should include.

1.4 Thesis structure

The thesis starts with a brief introduction to the context of the case study. The research strategy is then supported by ontological standpoints, theory and methods of collecting and analyzing the data. The presentation of results and analysis follows the flow of the model of conditional cooperation (adopted from Poteete, Janssen & Ostrom, 2010). See model in figure 3 and an outline of analysis in figure 6. The analysis identifies the relevant microsituational and broader contextual variables from the interviews in four themes: i) learning and norm adopting individuals; ii) levels of trust within the community; iii) levels of cooperation and; iv) net benefits and how these four components form a reinforcing relationship. Each of the themes elaborate on one of the core questions of sustainability science posed by Kates et al. (2001).

2 Contextualizing research aims

The tourism sector is a huge employer, creator of economic security and contributor to society [...] it is essential to development and can champion the attainment of the United Nations Millennium Development Goals.

Jeffrey Sachs, Director of the Earth Institute, addressing the Global Tourism Forum in Andorra 2011 (WTO, 2011a)

The tourism industry, “the businesses and organizations involved with in delivering the tourism product” (Cooper et al., 1998, p. 5), is considered the fastest growing industry in Sweden. In 2010 it accounted for a turnover of around 280 billion Euro (254,4 billion SEK), which was 3,2% more than in 2009. This accounts for 3,1% of Sweden’s total BNP, which is a larger percentage than agriculture, forestry or fisheries account for (Swedish Agency for Economic and Regional Growth, 2011). In 2010 Sweden had 52,4 million overnight stays, an increase of 2,7% from 2009. Thereof 1,3 million of these were in Norrbotten compared to 1 million in 2001 (Statistics Sweden, 2011).

Despite of fast economic growth in the tourism industry, the sector is considered vulnerable in three main ways: i) it is traditionally viewed as small scaled businesses which are highly market sensitive; ii) it is categorized in the service sector which contains employees with the lowest salary; and iii) it is highly dependent on carrying capacity of ecosystems. A global community on tourism, gathered in the World Tourism Organization, is pushing for a stronger recognition and mainstreaming of the tourism industry as a tool for sustainable development in the global agenda under the pre-assumption that tourism is of great importance for job creation in most countries (WTO, 2011b). While tourism is generally treated as a solution to many economic, social and environmental challenges worldwide the sector’s vulnerability lies in its lack of recognition as an employing industry in many countries and therefore lacks the agenda to have an impact on development in an encompassing and sustainable manner. This contradiction leads to lack of collaboration, which stalls the sector’s development. Ministries of tourism in most countries are not responsible for things that have a major impact on tourism industry, e.g. trade, employment law or planning. Because of this, tourism organizations constantly need to intervene across multiple government departments (WTO, 2011b) at the same time as tourism systems need to contain global and destination-specific issues, such as infrastructure, employment, social services, transportation, communication, commercialization and nature conservation.

The development of tourism is significantly different between cultures, climates and ecosystems. As the case study of this thesis will show, conditions are specific for each community. Nevertheless NEP communities are interesting because they share certain conditions, mostly grounded in geographically peripheral vast areas of especially fragile ecosystems (Ólafsdóttir & Runnström, 2009). Moreover it is assumed that most NEP areas contain mostly rural areas with low population density and are influenced by extreme climate. This leads to an assumption of common challenges in limiting infrastructure and population decline. There is no specific geographical definition of NEPs but as a guideline the EU sponsored Northern Periphery Programme 2007-2013 covers Iceland, Greenland, Faroe Islands, and northern parts of North Ireland, Ireland, Scotland, Norway, Sweden and Finland.

[...] Lappland is, seen from many perspectives, a very important area. It is not only therefore that I have provided the summary about it [...] but rather because knowledge of the country is necessary for a clear and complete apprehension of the people that live there, for these people are dependent on the natural environment for their existence, far more than the settled inhabitants, and they are in certain respects completely dependent on this environment.

(von Düben, G., 1873, p. 30)

This observation is one of the earliest estimates of the correlation between nature and culture in northern Sweden, and remains in some ways relevant today. The ontological standpoint of this thesis emphasizes this in three main ways: i) humans can never escape the ecological reality that they live in and are constantly dependent on related geographical features such as land use, demographics, policies and planning; ii) the need to understand a certain context from the viewpoint of local people will always be relevant; iii) without knowledge of the conditions that people live in it is impossible to understand their way of life and needs in decision-making. All three are especially true in remote and peripheral areas. As a demonstration of this and the common challenges of the NEPs, a small community in Norrbotten, northern Sweden was chosen as the case study presented in this thesis (Figure 1).

The interviewees (table 1) represent all tourist hosts in a cluster of the communities Gunnarsbyn, Lassbyn and Överstbyn (referred to as Gunnarsbyn) located in Boden municipality (figure 1). The correct names of the interviewees are used in this thesis with their permission. The area is often identified with its geographical location close to the polar circle where it is usually covered with snow from November till March, continued by the spring-winter referred to as the best time of the year by the local people. Summers are relatively short but warm. Small population spread over large territories is descriptive for the north of Sweden. The town of Gunnarsbyn has 157 inhabitants but the parish population of c.a. 750 is spread over a territory of about 90 km². In Boden municipality 27.500 people are spread over 4.300 km², which means 7 persons per km² (The Swedish mapping, cadastral and land registration authority, 2011).



Figure 1: The location of the case study area, Gunnarsbyn, Lassbyn and Överstbyn in Boden municipality. Source: The Swedish mapping, cadastral and land registration authority, 2011.

Table 1: List of interviewees

Interviewees	Description of business
Kurt Selberg Maria Prellwitz	<i>North Craft</i> : cabins and catering, retailer
Lorentz Andersson Carina Andersson	<i>Älvdalsturisten, Camp Svanis, Nygårdvikens camping</i> : cabins and catering
Love Rynbäck	<i>Creative adventure</i> : recreation & outdoor adventure tourism
Tatiana Rynbäck	Manager of Tourism Networking Project in Gunnarsbyn AND <i>Creative adventure</i>

North Craft with a camp in Getronosan: Family company owned by Kurt and Maria. Kurt is the manager and works with it fulltime and has one employee. Maria helps out in the camp from time to time. The camp is a complex of cabins with 14 beds altogether, sauna and outdoor bathtub that Kurt himself has built over a period of 10 years. They offer tailor made experiences with food, fishing and activities. Kurt says that the company is economically stable because the tourism activities in the camp are supported by selling own-produced or retailed outdoor bathtubs, iron stoves, sledges for snowmobiles, tent cots and other equipment for outdoor activities. The camp is located about 15 minutes outside of Gunnarsbyn where they live.

Camp Svanis: Lorentz and Carina both work in the camp and run the business together. The concept of the camp is electricity free experiences of nature, with the possibility of fishing or hunting birds or moose. The camp has 40 beds altogether in seven cabins, a cot for meals and conference and a sauna and outdoor bathtub. Most of their guests come with Swedish organizations or companies but those that come specifically for fishing and hunting are mostly Finnish. The camp is located about an hour from Lassbyn where Lorentz and Carina live.

Creative adventure: Love and Tatiana started the company when they moved from Colombia to Sweden 11 years ago, where they worked with tourism. Love is the owner and works with the company fulltime. Tatiana occasionally helps out in the company. Love describes the company as a pure adventure-experience company with a base in Överstbyn but has the whole of Lapland as its workplace. Around 85% of their guests are international.

In order to visualize the initial understanding of the context, and to provide a definition of resilience *of what to what* (Walker et al., 2002, Carpenter et al., 2001) the thesis aims to show, a perspective model on a socio-ecological system of tourist hosts in the northern periphery of Sweden was created. It was made in the approach of social constructionism and thus avoids taken-for-granted knowledge about NEPs, and focuses its system boundaries on the community as the supply side of tourism. It formulates the problem: *how does tourism practice contribute to the sustainable development of a northern periphery community?* (figure 2). This model will be used for comparison to the outcome of the analysis in chapter 4.

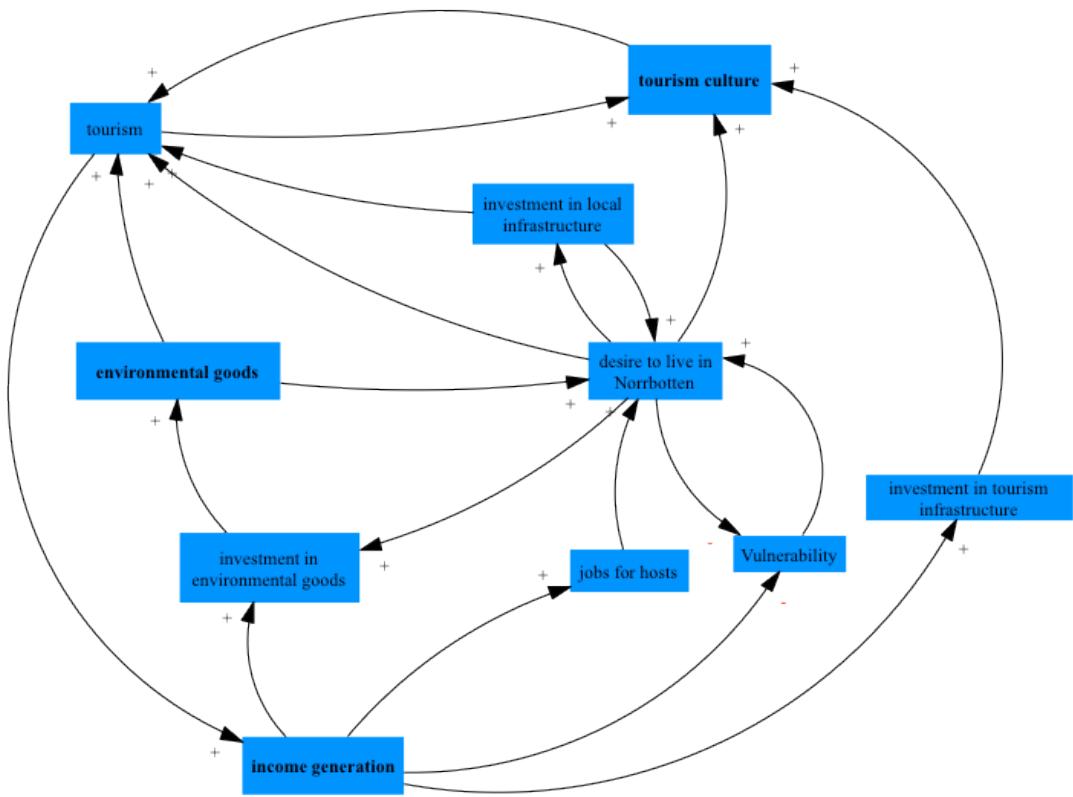


Figure 2: A perspective model on a socio-ecological system of tourist hosts in the northern periphery of Sweden.

3 Methodology

The methodology of this thesis encompasses a social constructionist view of political ecology. Specific norms and collective actions for sustainable use of common resources in tourism development were collected with participatory qualitative system dynamics modeling in semi-structured interviews and analyzed with a grounded theory approach.

3.1 Ontology & Epistemology

Social constructionism is an epistemological approach that seeks meaning of practice and “assumes that people create social realities through individual and collective actions. Rather than seeing the world as given, constructionists ask, how is it accomplished?” (Bryant & Charmaz, 2010, p.610). In this thesis, systematic perspective and constructionist approach are led together and interviewees get to express their concerns, both with regard to their work as detailed and personal development, and as a part of a larger system. Working in the paradigm of social constructionism, the principles discussed by Burr (2003) are adapted, namely:

- i) A critical stance is taken toward taken-for-granted knowledge;
- ii) Historical and cultural specificity is adapted in world view (everything is context related);
- iii) Knowledge is considered to be sustained by social processes, constructed between people and practice and create accepted ways of doing;
- iv) Knowledge and social action go together and there are patterns that sustain a certain practice.

Furthermore, Burr (2003) refers to two schools of social constructionism; micro social constructionism where reality is created by social action, as opposed to macro social constructionism where power and structure explain the system. Through the lens of micro social constructionism, claims about the constructed reality of sustainable practice in rural tourism in the northern periphery can only be made by descriptions of the constructors themselves (the tourist hosts) giving them the agency of change. In order to observe “what people at a particular time and place take as real, how they construct their views and actions, when different constructions arise, whose constructions become taken as definitive, and how that process ensues” (Bryant & Charmaz, 2010, p.610), an effective way to represent conditions and consequences of processes in a particular community is to observe and present firsthand information about specific practice.

3.2 Theoretical perspective

Political ecology provides the conceptual theory of this thesis. Conservation policies and the third world are the traditional focus of political ecology (Bryant & Bailey, 1997, Vaccaro & Beltran, 2010). But recent applications in the northern context have shown that political ecology is relevant for studying tourism and management of common resources in the peripheral areas of the north (e.g. McCarthy, 2002, Vik, Benjaminsen & Daugstad, 2010). Ecological emphasis on social science context has

developed through the disciplines of human ecology, cultural geography and cultural ecology (Broadbent (ed.), 1989), which bypass environmental determinism but emphasize the need for systematic approach where climate is one of the factors involved with defining a context. “Culture comprises all learned and transmitted ideological, social and material traits [...] operates as a factor between man and environment” (Broadbent, 1989, p. 4). “[...] since humans appropriate nature as social beings and in an institutional context of their own design, human ecology is necessarily political ecology” (Pálsson in Broadbent, 1989, p. 47). A pragmatic approach, which recognizes that patterns consists of many and complex components and relationships, is therefore present in the analysis along with a more in-depth analysis of the practice.

The human behavioral theory on management of common pool resources suggested by Poteete et al. (2010) which was chosen as a framework for the analysis of this thesis is a pragmatic view of humans as norm-adopting, learning and dependent on reciprocity in the context that they live and work in. According to the rational-choice model that inspired the conventional theory of *the tragedy of the commons* “individuals are assumed to have complete information about the structure of the situation that they are in”, and are thus “assumed to select the strategy leading to the best expected outcome for self” and would, regardless of microsituational structure or broader context, maximize short-term returns to self instead of cooperating (as summarized by Poteete et al. 2010, p. 217). In opposition to this, in dilemma situations about common pool resources, trust in reciprocity and search for common net benefits should rather be central to the analysis (figure 3). There are three main outgoing points to why this is applicable to this analysis:

- i) Actors possess incomplete information about the structure of their situation, in which they are interacting with others, but they are acquiring more complete and reliable information over time since the situation is being repeated and they generate reliable feedback to those involved.
- ii) Actors have preferences related to achieving net benefits for self combined with other-regarding preferences and norms about appropriate actions and outcomes that affect their decisions.
- iii) Actors use a variety of heuristics in making daily decisions that may approximate maximization of net benefits for self and/or for others in some competitive situations but are highly cooperative in other situations.

(adapted from Poteete et al. 2010).

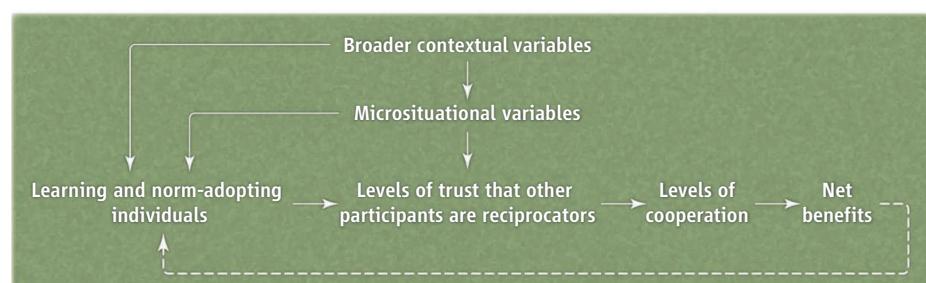


Figure 3: Conditional cooperation describes learning and norm-adopting individuals who are attracted to certain situations, and are affected by the behavior of other actors facing the same situation. Source: Volland & Ostrom (2010).

3.3 Research strategy

A research strategy of case study with a grounded theory approach was used for analyzing, interpreting and constructing empirical data. The core of grounded theory methods are i) constant comparison; ii) designing codes and concepts; iii) inductive reasoning and iterative procedures of analyzing data and; iv) systematic and sensitive generation of new themes and theories from information (Glaser, 1978).

A case study design was chosen because the researcher i) focuses on contemporary events, ii) assumes access to people involved with a particular behavior but as an objective observer has no control to manipulate that behavior, iii) designs research questions that are explanatory and deal with operational links and patterns, and iv) illuminates specific sets of decisions or practices: “why they were taken, how they were implemented, and with what results” (Yin, 2009, p.17).

3.4 Methods

3.4.1 Data collection

Describing the experience of each person around a constructed reality is too complicated to be represented without any kind of generalization. This is even difficult for the interviewees themselves to avoid. Some kind of judgment must be made in order to identify what phenomena are of interest. Accounts of specific practice have thus been given a central role in this thesis for understanding both the dynamics of the system with qualitative systems analysis, and experience with semi-structured interviews.

The goal with qualitative semi-structured interviews is to “explore a topic more openly and to allow interviewees to express their opinions and ideas in their own words” (Esterberg, 2001, p.87). The interview design is thus built on a basis of open questions about wide concepts such as sustainable development, which knowingly were left up for interpretation (Appendix I).

Fieldwork was done in Gunnarsbyn in March 2nd – 15th 2011. The interviewees were chosen by purposive selection, already established connections with people that have interest in the subject and can give the greatest possible insight into the topic in this area (Esterberg, 2001). Pre-knowledge about tourism practice in the north of Sweden was grounded in an experience of working with the same tourist hosts in their companies as a volunteer in 2009. The analytical framework of objectivist grounded theory makes the researcher a neutral observer who sees relationships as unproblematic (Bryant & Charmaz, 2010). The relationship with the interviewees may challenge the role of a neutral researcher and creates a risk for bias. On the other hand these individuals were chosen because they are very interested in the subject. Also, having a former relationship with the interviewees helped create a relaxed atmosphere where they were comfortable with formulating answers in their own words and patient with taking the time for the interview, which in all cases took around 4 hours including a lunch/dinner brake.

Six people were interviewed in three sessions, some parts of the interviews were taken together and some individually. The interviews were conducted in Swedish and translated in the transcribing process. Two of the planned interviews were cancelled during the fieldwork. Attempts were made to conduct the interviews

through correspondence and telephone but that unfortunately did not work out.

3.4.2 Qualitative System Analysis

Interviewees were asked to draw models where the goal was to determine vulnerability of important components in their socio-ecological system and critical relationships. According to Walker et al. (2002), participatory modeling can include any kind of model or image that help the participant express their view of a certain current system. Participatory modeling has mostly been used in public participation processes, which usually are formal processes done in large groups and mostly contain quantitative modeling (Mendoza & Prabhu, 2006). Cognitive modeling, on the other hand, is considered appropriate as a scoping method to identify key concepts and variables. Qualitative system dynamics thus seeks to gain information about the perceived relationship between variables while still defining links between variables systematically by adding a positive or negative value to the relationship, making that method more appropriate for this study.

In order to fulfill this task, the method of Causal Loop Diagrams (CLDs) was chosen. It is a clear and accessible method to decompose components and feedback relationships that are considered relevant and significant to a problem (Haraldsson, 2004). The participatory modeling was conducted as a part of a semi-structured interview. After having started the interview with open questions about their company and their perception of sustainable development, this part of the interview aimed to tie the wider discussion about sustainable development down to concrete descriptions of the dynamics of their system. The participatory modeling was conducted in four steps:

- 1) The basics of Causal Loop Diagrams are explained with the help of a simple example diagram that does not relate to the aim of the interview.
- 2) The goal of the diagram that they are supposed to draw is clarified: *How does tourism practice make the community sustainable?*
- 3) The interviewee creates a diagram with help of questions:
 - Which perspectives are involved?
 - What impact do they have on one another?
- 4) The interviewee explains the dynamics of the diagram with help of questions:
 - Which aspect are the most limiting?
 - Which aspects are the least flexible?
 - Which relationships are the most threatening?
 - What is important to know about the context of this system?
 - Which strategies are the most relevant to be able to meet these challenges?
 - What information is relevant about relationships between local, national and global levels?

The first step of participatory modeling is to make clear what is wanted from the interviewee. Explaining the method was expected to be the biggest challenge in conducting the interviews but the method proved easy to adopt and the participants liked the task. The model was not supposed to include a time range or a space for change, rather it is to show the contemporary state of the system at the time of the interview, functioning as “the collection of values of the state variables at that time” (Walker et al., 2002) from the perspective of the interviewee.

3.4.3 Iterative analytical process

In order to embrace the inter-disciplinary basis of both sustainability science and tourism studies, the analysis adopted the main ideology behind grounded theory, to “sharpen rather than blunt theoretical sensitivity, by working with a wide range of cross-cutting and inter-disciplinary ideas” (Dey in Bryant and Charmaz, 2010, p. 176).

As discussed in Bryant and Charmaz (2010, p.17), some writers use two or more of the terms *code*, *concept*, *category* and *theme* synonymously, making them interchangeable. As the subjects that were brought up in the interviews vary in scale and time perspectives it was decided to divide their transcribed content into four themes and started the analytical process of constant comparison with using *codes* to compare the *themes* (figure 5). The *codes* were retrieved from the reference points formed in the perspective system analysis model (figure 2) and the interview design (appendix I).

The outcome of this thesis is grounded in empirical data and space is left for *categories* to emerge from the data providing “a parsimonious conceptual structure which allows for rich theoretical elaboration” (Dey in Bryant and Charmaz, 2010, p. 169). The *categories* are the components that emerged from the participatory qualitative systems dynamics modeling. The iterative process of analysis presented in the following themes takes into account i) comparison between and within the themes; ii) comparison to information about important strategic initiatives in the area; iii) comparison between the themes and core questions of sustainability science and; iv) comparison to the theoretical background of the research. The iterative analytical process aims for theorizing rather than verifying the results of the interviews. This allows for a deeper grounding in the empirical data as the context of discovery while treating participatory modeling as a platform to think about important components and relationships (Dey in Bryant and Charmaz, 2010).

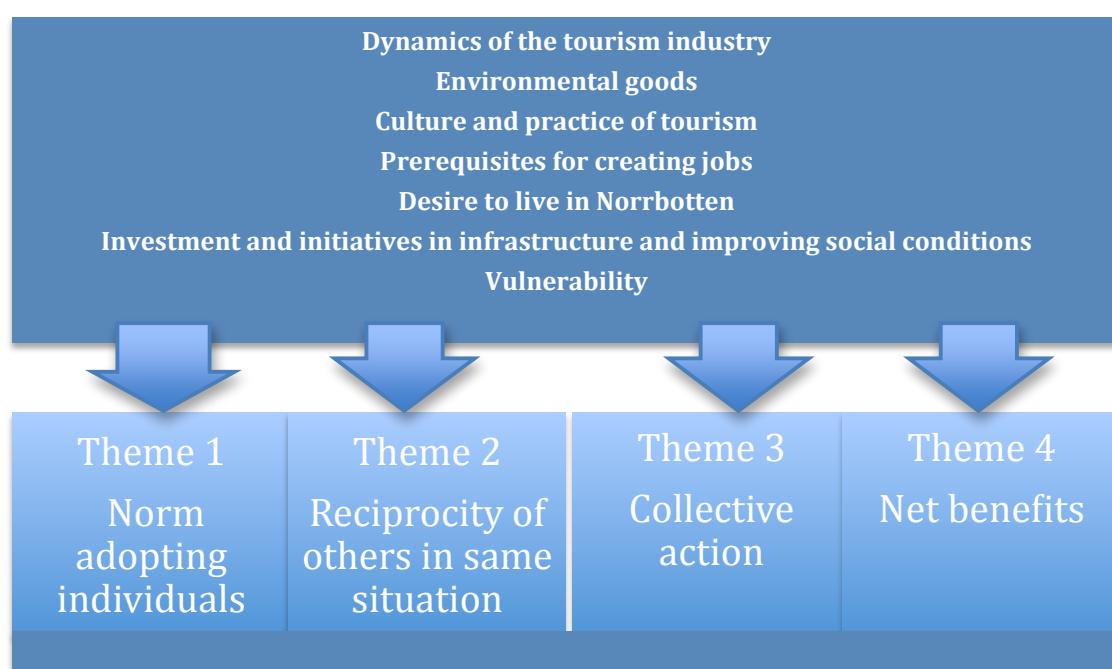


Figure 4: The codes and themes that were used to analyze the interviews

4 Results and analysis

The purpose of this analysis is to assess the degree in which collective action in tourism in Gunnarsbyn is *conditional*, that is dependent on its own context where trust in other participants in reasons for cooperation is reciprocal (Vollan & Ostrom 2010, Poteete et al. 2010). The analysis includes identification of the relevant microsituational and broader contextual variables involved in cooperation and assesses the potential of tourism to empower sustainable development of the community. This proves true if the variables support a reinforcing relationship between i) learning and norm adopting individuals; ii) levels of trust within the community; iii) levels of cooperation and; iv) net benefits (Vollan & Ostrom 2010). These four components will be analyzed in four sub-chapters below (figure 5), through the outcomes of the interviews and through four core questions of sustainability science posed by Kates et al. (2001).

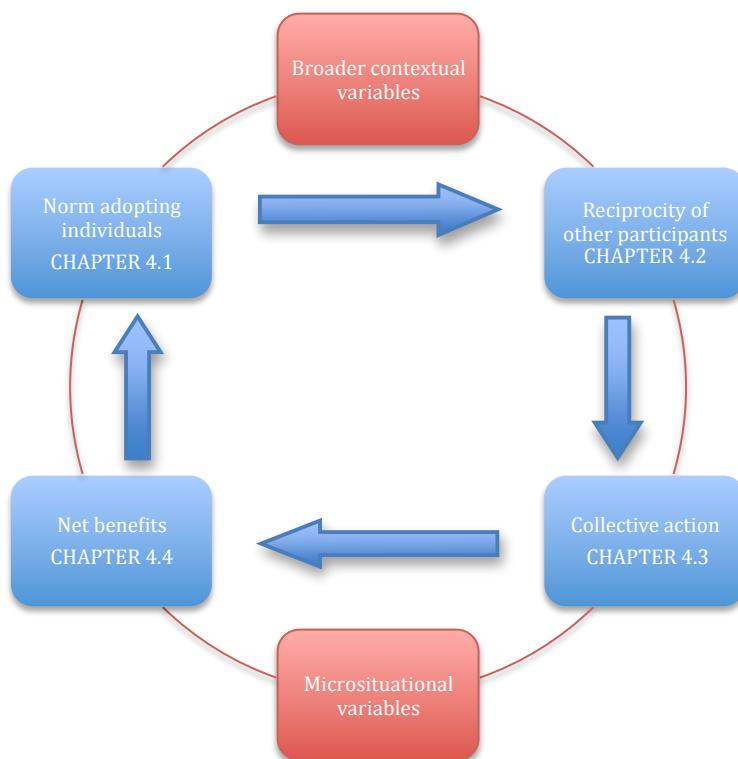


Figure 5: Outline of the chapter incorporated into the model of analysis adopted from model of Conditional cooperation by Poteete et al. (2010)

4.1 Adopting individuals

The first sub-research question of this thesis is *why are tourist hosts in Gunnarsbyn practicing tourism in the manner that they do today?* In answering this question the focus of this chapter is firstly to explain the vulnerability involved in the Socio-environmental system of practicing tourism in this community. Secondly the chapter aims to describe how the tourist hosts are i) *norm adopting* on how they share common pool resources and; ii) *learning* in developing a practice that is sustainable for their community.

Addressing core question of sustainability science nr 3:
What determines the vulnerability or resilience of the nature-society in particular kinds of places and for particular types of ecosystems and human livelihoods?

(Kates et al., 2001, p. 642)

Vulnerability was addressed in preparation for the fieldwork as a part of an introductory perspective model of tourism practice (chapter 2). In comparison with the results of the participatory qualitative systems dynamics conducted in the fieldwork, an overall weakness of the perspective model was that it almost only had positive feedback loops, while the participation models had more balancing relationships. More importantly, vulnerability was put in as a component, triggering the only negative relationship in the perspective model. It came clear in the analytical process that this was impossible to include as a specific component when describing the participant's system, and needs to be treated as inherent in the dynamics of the system as a whole. Specific components that make the community and the practice vulnerable are the interesting things, not vulnerability in it-self.

Common standpoints from the interviews include that the vulnerability of their system is grounded in the problem that governmental and municipal policies in Sweden are centralized, and efforts in the northern periphery of Sweden mostly serve traditional industries, (forestry, mining, hydropower and agriculture). These efforts leave little attention to development of the tourism industry and limit the possibilities of tourist hosts to invest in their business and employ people. Work opportunities in the traditional industries are currently being substituted by technology and outsourced to foreign companies, especially forestry, where "the effect is: fewer and fewer people that rely on the industry, which naturally leads to a demand for other industries to be reliant on" (Lorentz). The analysis deducted six main reasons to why the interviewees think that the tourism industry is vulnerable in this area (these are also specifically emphasized in the participatory qualitative system dynamics modeled by Tatiana and Love in appendix II):

- i) There are attitudes in the community that say that working in tourism is not sufficiently economically stable, and people would rather choose to be employed by traditional industries.
- ii) Employment tax is too high for small-scale tourism companies to be able employ people.
- iii) Employment policies in Sweden are centralized: "if I'm unemployed here, and haven't found a job within 100 days, and there is a job in a city then I must take it, or lose all my rights to unemployment pay. But of course, if a person in Stockholm is unemployed, he or she would never be forced to move to Lappland!" (Love).

- iv) Service and infrastructure are centralized both on governmental and municipal levels and reaches the community with big inertia even though they are paying the same amount of taxes.
- v) Despite of active engagement in dialogues with politicians for influencing decision making in state policies have not been fruitful.
- vi) Marketing is the fuel needed to drive tourism, but lacking tools for common marketing from government and municipalities creates more need for cooperation on the community level.

The tourism attraction in the northern periphery is highly nature based because of its vast open landscapes that contain ecosystems that are especially fragile to pressure from human activities (Ólafsdóttir & Runnström, 2009). Given the Swedish law of free movement through all territories (*s. Allmänsrätten*), tourist hosts have the same rights as other individuals to travel with their guests in open territories. It gives individuals and organizations the right to travel through and stay overnight in the nature, including reserved areas and national parks (Naturvårdsverket, 2009). These are the conditions that make it possible for tourist hosts in the northern periphery to create their attraction without ownership of land. Although this gives great freedom and opportunities, it also creates another dimension of vulnerability through the dilemma of being forced to share natural resources with other industries. The most relevant example for this case study is leasing land from the state-owned Sveaskog, Sweden's biggest owner of forest. Most tourist hosts in Norrbotten that have camps or cabins, lease land of Sveaskog. Four main ways in which this intensifies vulnerability of tourism practice in Gunnarsbyn emerged from the interviews (see also this causal relationship as modeled by Carina and Lorentz in appendix II):

- 1) Forestry belongs to the group of traditional industries of the NEPs, which are prioritized and make tourism of low priority in external economic processes and governmental policies.
- 2) Tourism companies face investment difficulties because potentials of their own worth are not realized in loan institutions. Sveaskog increases this insecurity because properties on leased land cannot be used as guarantee for further investments.
- 3) Sveaskog is obliged to cut 5% of their forest holdings every year which makes logging a direct threat to making a living out of nature-based experiences. The environmental impact of logging is not often criticized because it has been done in the same way for centuries.
- 4) Sveaskog threatens their ability to economically secure their work in tourism because they have the authority to increase the rent for the land or sell it at any time.

The interviewees emphasized the need to adopt to the lack of shift in focus in industry policies. It is clear to them that current subsidized industries are on decline and do not serve a purpose for the NEPs, and they have difficulties in seeing results of both national and regional politics locally.

The politics that we face is basically that we should all live on Drottninggatan in Stockholm. Rural politics are none-existing. Many years ago they said that people could live where they want because we can plant jobs in the rural areas, but they have only centralized all jobs [...] the municipalities have improved themselves but still a majority of the efforts are in the urban areas in the municipalities.

Kurt

What the interviewees are describing is doubled vulnerability of living in a northern periphery community and making a living in the tourism industry. Tourism is a strategy to cope with geographical and political vulnerability but the problem is that the tourism sector is also vulnerable in itself. According to them, both the NEPs and the tourism industry are of low priority in national politics, and small-scale tourism businesses in peripheral areas are thus treated as they are of little economic importance.

The minister of industries had a meeting here in Gunnarsbyn, and he asked us 'what is it we should do for you here?' The answer was that you don't need to help us any more than people in urban areas, start with giving us the same possibilities, and give us the same kind of investments that you give the ones in the urban areas. We don't need any special treatment, if we just have the same prerequisites.

Kurt

Now they are saying tourism is the fastest growing industry in Sweden, well yes it is, then why don't you believe in the people who are willing to work in the industry? Why not give them the same prerequisites to work? [...] the cabin isn't supposed to be worth less because it's used for tourism or because it's built on a ground that you don't own, it doesn't make any difference, it's not like the material is less expensive depending on the definition of the ownership of the land, it's exactly the same, it's just that I won't get a loan from the state. That's one sentence that you need to change in the law that would change everything.

Lorentz

The tourist hosts consider the larger system too standardized to deal with the changing and instable nature of their livelihoods. Moreover they describe their position as the worst place to practice tourism and totally economically irrational. But since they want to continue living in the area, their hands are tied to the system that they work within (Love). Contributing to a changing community is about learning to manage with change (Folke, 2006). In order to tell something about how tourist hosts in Gunnarsbyn understand sustainable development you need to understand *why they are practicing tourism the way they are doing today*. The answers to that question are descriptions of adaptive practice and planning which is their ongoing practical accomplishment. Specific practice in tourism was described by the tourist hosts in Gunnarsbyn in three main pillars that create meaningful boundaries for securing sustainable development of their work. They practice tourism in the manner they do today with the goal to i) fulfill the needs of their guests; ii) add personal value to their work and; iii) follow a community created code of conduct of how to work in the nature.

The interviewees were asked to describe specific practice in their everyday work and why they do them. Kurt resembles most of the interviewees when he says

that in his work most of his time goes to: 1) Prepare wood and make fireplaces in the cabins, sauna, bonfire and outdoor bath; 2) fill the outdoor bath with water from the lake and; 3) prepare meals, and that the reason why he does these things in that way is because “it is so much fun when the guests arrive, to be able to provide good service, give them good food and the nice experience of sauna and outdoor bath and you get the feedback from them of how wonderful it is” (Kurt).

Maria adds that the most important attributes are that “Kurt has built those houses where the people are staying, the food is homemade and locally produced and the guests are always pleased”. This way a unique place for them becomes a unique place for the guests. The joy of being able to provide this particular service in this particular place is thus the main driver for the development of the practice. The reward is seeing the impact their service can have on people: “They just change their pace and it’s fascinating to see the change in their attitudes like if you put them down for jig fishing, there isn’t a lot of action and it’s like the stress just melts of them, they are forced to relax, because there is nothing else” (Maria).

All of the interviewees have similar experience of noticing how their specific practice has positive impact on their guests. Love talked about the “aha” experiences that the guests have when they are taking part in the activities, introducing them to things that are given and normal in the northern periphery context could be seen as hidden service within the service.

For example if the guests are to have a warm place to sleep in the woods we need to stuff in wood in the oven all the time, after a while they start to ask where does the wood come from? The adventure itself may be driving a snowmobile but it is often these kind of details that they remember.

Love

When addressing adopting to sustainability challenges, all of the interviewees replied with concrete examples of everyday practice. Love says that when organizing activities they always use local materials and service, “so that we can support local knowledge and capacity available in local micro-economies”. He says that the supply that meets the needs of the company within the boundaries of Gunnarsbyn is only 10-15%, “but if I look at it with a bigger parameter, about 100 km, we get most of what we need, so we use very few foreign producers for our company” (Love). All of the interviewees seem to share the view that products and services for creating tourism experiences should be local. When asked about the availability of products locally, Lorentz says:

For making food we don’t need to go far. We have a butcher within 30 km, and other meat we produce ourselves, potatoes we can buy here, in the summer we grow vegetables here outside in the greenhouse [...] we pick lingon berries [...] all these things of course need to come from the local area. If you live like this yourself and your job is to show people the genuine, then of course you don’t go ruining that with serving something you can have wherever.

Lorentz switches from talking about food products to waste disposal in a way that indicates awareness of the whole process chain. They are now in the process of testing new biodegradable garbage bags which solves many problems in Lorentz’ view, “because then we can basically compost almost all waste and burn the rest that is inflammable, like paper and cardboards. Everything else we take down and recycle”.

When asked about their view of sustainable development, Lorentz and Carina, although interviewed separately, both tied the concept directly down to a manageable manner in their own work in the camp. This is a clear example of how complicated sustainability challenges can often be simplified into individual efforts that make a difference.

Sustainable development is about being able to after 20 years fish in the lakes up there in exact the same manner as we do today, and furthermore we should have it as a goal that we then can, like we do today, dip our cup in the water and drink it. We are doing everything we can and we are going to reach that goal [...] if we start with ourselves and look at what we are doing ourselves it is easier for us to have an impact on other people, because people are like children, they do the things they see others do rather than do what they are told.

Lorentz

Lorentz goes on to explaining a number of specific things they do everyday in order to, in his own words, fulfill the goal of sustainable development:

- i. All boats and everything that goes in the water is washed with biodegradable detergents and rinsed before putting them into the water. "We do this because we are terrified of fish deceases and contagious water that are carried from other lakes". Lorentz says that there are not many who do this in Sweden, "but I believe that in some years everybody will, because the fear will spread".
- ii. They don't allow lead sinkers in the water, "there are theories that they can harm the life in the water in many ways, but there are also others who say that it's harmless. It doesn't matter if they are, because you can use other materials [...] and we don't know that yet so it's better to not use it now".
- iii. They stick to a few fireplaces around the lake, "we do that because always when people are gathered in a place there always generates pollution that you can't see, like the things you usually do on the toilet".
- iv. They minimize transportation "for example if a family is going out on the boat and is planning to stop at one of these picnic places, ask them 'can I send a package of wood with you?' The effect is that the next visitor has wood and I save the environmental impact of taking an extra tour with my boat [...] people also like doing something that serves a purpose".
- v. They only allow boats with electric motors on the lake. "It's great because they're environmentally friendly, quiet and the lake is calm and nobody disturbs anybody".
- vi. When guests come to camp Svanis, Lorentz and Carina discuss with them about environmental impact locally and how they work in the nature. "In that I think we are few who put down this much effort into talking about these things".

Working with nature emerged as a stable component in the accounts of the tourist hosts as their main condition for quality of life and their work; creating access for more people to enjoy the nature that they enjoy every day. In a sense they regard these activities as a justification of giving nature an instrumental value by making a living of it. Making a living out of observing the nature is about transforming environmental goods into cultural experiences. The interviewees can stand by the statement that their activities are designed "according to the nature" (Tatiana) because they feel obligated to meet ecological limits at the same time as nature fulfills their quality of life and ability to make a living. It was detected in the interviews that the responsibility for preventing further environmental degradation on a global level was somehow ascribed to them as a code of conduct. In explaining his practice in the light of

sustainability challenges, Lorentz says that they are just measures of “doing what you can!”, even accounting for skepticism towards the impact of human behavior on the environment: “I won’t live to see drastic changes, so there is nothing we can say for sure if it is good practice, you can just believe in what you do, and it’s about how far you go with these things”. Carina makes the connection very clear:

These messages reach us all the time scaring us, the catastrophes and the sudden weather changes, there must be a reason for all this. And if the explanation is that we soon have used up all the resources on our planet and consumed unnecessarily much, then that is horrible and we need to re-evaluate [...] that’s why I think it is very important that the guests are with us in taking care of the place, and that they understand why we have the rules we have. We tell them that there is a set of thoughts behind everything, because we are concerned for the future of the lake.

Adaptive planning is visible mostly in how the tourist hosts use local products and services, and the importance of marketing and working with unfixed resources. Northern peripheral tourism companies share the common challenge of being forced to prioritize marketing in order to attract visitors. Love says flexible planning was a part of the business plan from the beginning. “If the costumer can’t come to us then we go to them, that means that I can be in Kiruna one day and in Västerbotten the next, but do the same kind of work”. The work is therefore more adaptable to changes and flexible to both needs of the guests and own needs. “I have tried to build a service in a manner that is comfortable for us too, and offer a variety of products that are available here locally which is already plenty of space to work with”.

Love says that through working with a mobile and instable market with products that are vulnerable in trade cycles, small scale tourism businesses are more vulnerable to shocks on the global level such as the recent economic crisis. Creating stability in times of crises should happen on a national level but in this case it seems to be happening on the individual level. Love contributes to this shift in two main ways: i) producing experiences that are adaptable to the needs and location of the costumer, not having any funds locked in properties in a certain place and; ii) by handling direct communication with the international market himself. He spends 1-2 hours per day marketing himself on the internet, using very little resources but reaches very far. “The reason why we could survive is that we are able to minimize costs ourselves, we work with unfixed resources [...] and take in the resources when we need them and in that way we work in a sustainable manner” (Love).

The standardization of governmental policies are considered major limitations for the future of their companies. “I can easily sit here and play sustainability but if there are going to be real changes the big players need to be involved” (Love). All of the interviewees agree that they want to see changes in the management of their businesses but no changes in terms of location and culture of their tourism practice. Despite of this, the desire to continue the practice is threatened by external factors that may force them to move to an urban area.

While waiting for the wider acceptance of the sector, the interviewees are making efforts in their individual practice to turn the described doubled vulnerability into something positive in their work. Adaption to changes in the community and in the tourism industry is crucial, but it is also important to learn to believe that your work serves a purpose, and that purpose is worth others adopting to it.

Lorentz and Carina explain that they do their work “because we like being

with people, we like being in the forest and we like fishing, so it isn't just a job, it's more like a lifestyle". Lorentz explains that how he experiences his work is not entirely economically rational because he would prefer hosting only 10 guests even though there is space for 40. Then they can sit with the guests and get more out of it themselves.

I think it means that we turn to people and that is fulfilling a need. I think that the things that we are doing will hold in the long run because it's so simple, the simplicity makes it valuable in that sense, there are no unnecessary fancy things, I'm thinking when you come into a city then you see all these restaurants or hotels they do everything to get people's attention and meet their wants and needs, it's the opposite at our camp. There's only silence and calm and there are two people that are willing to listen, talk and to be there with the people, and there is our food as an example of how we think about what we take from the nature.

Carina

There was an agreement among the tourist hosts that their work can be seen as turning environmental goods into social goods. "The world is a stressed out population and we are suffering from all sorts of deceases, in that our work in the camp has a value, the greater society perhaps feels better because there is such a place to go to" (Carina). This directly counteracts the sense of vulnerability that can be detected in the small-scale companies. On the contrary to being helpless and voiceless, the practice creates value for a greater society by making environmental awareness inherent in everyday work. Engaging in dialog with guests about the environment that they are currently sharing creates unproblematic awareness-making, and can easily encourage a more pro-environmental behavior of both actors.

The quality of life when living close to nature was a theme addressed by all of the interviewees, as something that cannot be disconnected from the experiences that they sell. Love says that he has chosen a line of work that makes use of the nature so that it will still be there for his children and grandchildren "to use in the same way as we have done" and Tatiana adds that through this the products are inherently sustainable, "it's the little things we do with the guest, making coffee outdoors in the middle of the winter and these things [...] there are not many countries that have this environment, and to be able to experience it all the time, that's the core of Älvdalen living". The equal access to use land for recreation and tourism activities thus creates a common informal code of conduct in the tourism practice, which requires a pro-environmental behavior.

This chapter has accounted for descriptions that do not indicate many difficulties on the local level with sharing common natural resources and running sustainable businesses. Small-scale companies are often in a position to be more resilient in dealing with sustainability challenges and this proves true about the case of tourist hosts in Gunnarsbyn. They are creating their own rationale around how common resources can be used in the most sustainable manner and through that it is clear why they want to do this kind of work in this place. The common interest in hosting according to the interest of nature contributes to creating a norm and a common goal with their work: make it possible to continue living in the community.

4.2 Other participants are reciprocators

The second sub-research question of this thesis is: *How do tourist hosts in Gunnarsbyn perceive common commitments to sustainability challenges?* It has been described how the tourist hosts in Gunnarsbyn, on an individual basis, adopt to the doubled vulnerability involved in sustainable development of their rural community and the challenges of working with common resources. The next step is to describe the levels of trust in that the other tourist hosts are reciprocators in the challenges described above, and commit equally to meeting these in the long-term perspective. The question only addresses the perspective of tourist hosts, but it is important to keep in mind that the community is small and the interviewees also belong to other stakeholder groups such as residents, those that have other jobs in other towns, and those engaged in local politics.

Addressing core question of sustainability science nr 2:
How are long-term trends in environment and development, including consumption and population, reshaping nature-society interactions in ways relevant to sustainability?

(Kates et al., 2001, p. 642)

Kurt, Maria, Tatiana, Love, Lorentz and Carina are gathered in Gunnarsbyn because they want to make use of the community's common natural resources as tourist hosts in a manner that is sustainable for the community. It became clear in the interviews that their tourism practice cannot be disconnected from their lifestyles. The reasons that emerged from the interviews are three folded: i) they are living in symbiosis with the company; ii) the physical environment is their workplace at the same time as it is used for leisure time recreation and; iii) they want to contribute to their community in their work but do so also through choosing to live there and not wanting to move.

This kind of connection between lifestyle and tourism practice is norm-adoptive and thrives on a trust in a common identity where resources should be used in a responsible manner and a critical attitude towards other types of tourism practice. "It's about highlighting that it's no mass-tourism that we are working with here" (Tatiana), and "you don't need to build a hotel or big constructions that consume the nature when you can make use of the resources that are already there" (Love). All of the interviewees did in fact mention that their practice does not comply with mass-tourism, but they want the same prerequisites as areas that practice mass-tourism. Finland's northern peripheries are a popular comparison because they share similar tourist attraction but have the prerequisites needed for expanding their tourism industry, which have resulted in more large-scale tourism activities.

We don't need to build mass-tourism but we can build the infrastructure to support the kind of tourism that we have now, because there are many actors in need for support in the rural areas [...] you don't do like Finland in all aspects, you don't create Santa Claus land, but instead you can support 10 small tourism companies that provide different service.

Kurt

The main challenges of the Gunnarsbyn socio-ecological system can be summarized in the lack of access to service and infrastructure that go hand in hand with the slow development of the tourism industry. A lack of trust in policies as external assistance has the effect that it is left to individuals to justify their choice of work and to

generate faith both in the tourism industry and in the community. As an example, Kurt mentioned that national level policies should reach tourism practice with a top-down approach, which is not the case today. He sees a future in the industry, but that does not coordinate with his future vision for the community: “especially foreign tourists will just become more and more interested in the area. The less people that live here and the more desert it seems, the more interesting the area is, unfortunately!” External inputs into tourism activities are in this case study only involved with *why there is work to do*, but in no way involved with *how work is done*. Furthermore, the dilemma of using natural resources as a tourist attraction in a sustainable manner is grounded in the fact that increase of external demand and incomes of tourism is positive for economic development at the same time as demand needs to be controlled in order to meet the carrying capacity of ecosystems and communities. If the conventional theory of the *tragedy of the commons* were to provide a solution to this, rules of how to meet the carrying capacity of ecosystems could only come from external authorities. The problem is that they do not remember the development of the socio-ecological system in the same manner as people who live there.

In contrast, the tourist hosts call for a combination of inputs from both external and internal sources. They talked about a need for new people that want to live in the community and are willing to take risks at the same time as they talked about a need for a community that remembers. It is evident that the generation that bridges these two is lost in Gunnarsbyn, as Kurt puts it: “Right now we are a community with a lot of capacity, but that capacity is in a population where too many are 65 and older. The community itself is dying out”. This generation gap means that young people lack reasons to visit the north, let alone live there.

We have been neglecting the jobs. Now there are no jobs left, not up here in the north, and we have to take these jobs, not because they are bad jobs but because they haven't existed before [...] take the example of Ice Hotel in Jukkasjärvi, they have existed for 20 years but were not really acknowledged until 8 years ago, what were they doing the first 12 years? Exactly the same things as now, then all of a sudden they reach a threshold where the concept is accepted.

Lorentz

It is evident that when the Ice Hotel was accepted as a reliable workplace, it was somehow connected to the point when the company started accounting for revenue in millions, and the multiplier effect in the community in Kiruna became measurable. This is understandable considering that economic growth is the dominating measurement for development. However, the results of the participatory modeling (figure 7) showed awareness of how uncertainty in their own business development threatens the economic stability of their socio-economic system as tourist hosts. All the interviewees agree that doing this type of work in this context could not be seen as rational in economic terms, it is the worst place to be in order to make the most of international markets and national level benefits.

Everybody who works in this field here agree that we have the worst jobs, but we have the jobs that are the most fun because we meet all these great people and it's a great stimulus to have this opportunity to show them what we have here and what we do, how one can live and think.

Lorentz

According to this, it would not serve a great purpose for external actors to use economic growth as an argument to change tourism practice in Gunnarsbyn. Rather, the interviewees seem more responsive to arguments of increasing social well-being of communities in the northern peripheries with the long-term perspective of increasing economic stability and balancing the population of the area. In a way the interviewees promote *development without growth* (as proposed by Daly, 1996) when they say ‘we don’t need more money! Money is absolutely not a limiting factor! Just change the policies so that we have the same prerequisites to do our work! Provide us with the same base to start on as other industries!’ The described desire to live and work in the northern periphery is a concrete example of how sustainable development (as defined in the report ‘Our Common Future’, World Commission on Environment and Development, 1987) can play out in reality; namely the desire for development which meets the needs of the present without compromising the ability of the future to meet its needs, in this particular area. When asked about the future, Tatiana and Love agree that they will probably not live to see measurable results of their work. But they work for the future of their children, and “that way we have come quite far, if we accept that” (Tatiana).

Love told me when we moved here that we would probably not see results within 20 years, and I didn’t believe him, comparing to where I come from, Ecuador, South America’s third poorest country, my point of reference was totally different both for the possibilities of the tourism industry and for Sweden, I thought I was coming to one of the most developed countries in the world, but in terms of tourism, there is nothing.

Tatiana

The desire to continue living in their community was expressed through opinions about living in more urbanized environment, lifestyles that they see as lacking in sustainability thinking. Questioning other people’s lifestyle also questions bigger powers of development and growth, as Greig et al. (2007) discuss, these people can be seen as a part of discontents of development, those that “question the desirability of every [region] emulating the western prototype” (p. 188) and do not see the purpose of emulating consumption driven societies in their community: “if I and others here in the community were here only for making money, the community would be dead” (Love). Carina pointed out that it is important to assess the results of their work themselves in order to see changes in the common: “I want to be able to see what’s happening, I care about the small context and how people are doing here”. Love takes a similar stand, when he says:

Locally we have felt that it made a difference when we moved here and started the company, people say that it looks like something is happening and that generates a form of hope for the future. It is very possible to live here, and it is possible to make something happen.

Love

This kind of communication is a clear example of establishing and enforcing norms of the community to secure economic sustainability of the tourism companies, not only for own prosperity but also for economic and social sustainability of the community. This creates an accumulative effect that Garfinkel (1967) refers to as *common culture*: “the discovery from within the society [...] of the existence of common sense

knowledge of social structures" (p. 76), and furthermore Wenger sees as a community of practice, a participation that refers "not just to local events of engagement in certain activities with certain people, but to a more encompassing process of being active participants in the *practices* of social communities and constructing *identities* in relation to these communities [...] Such participation shapes not only what we do, but also who we are and how we interpret what we do" (1998, p. 5). In their own words, the tourist hosts in Gunnarsbyn understand that they are reliant on joint strategies to minimize economic risk in their companies:

If people don't stop to stay the night, then maybe at least their car will get a flat tire on your way through Gunnarsbyn. In the 'Secure living' project that we have built up we would have a mechanic, so that if someone drives through he can at least get a flat tire and needs to stop and buy his service. And that also contributes to the infrastructure for the community, because today there is no mechanic and people need to get to Boden to get their car fixed. Then we miss out on a lot. And think if it were so wonderful that this person gets a flat tire in the evening so the next thought is 'I might as well stay the night'. If that was the reality I could go out every evening and put out pins on the road.

Lorentz

Central to this part of the analysis is that the tourist hosts do not see their situation of sharing common natural resources as a dilemma when communicating with other actors within the community. The dilemma situation is visible when communicating their needs to the larger system. The danger of choosing an alternative payoff structure that maximizes short-term individual returns (as discussed in Poteete et al., 2010) is thus not present in their current individual practice because they are constantly communicating with each other, have established unofficial rules that they follow and are able to monitor their own actions. Norms are thus very strong important factors in developing tourism practice in the community and seem to be supportive of a lifestyle of common commitments to deal with long-term sustainability challenges.

4.3 Systems of cooperation and collective action

Inspired by the fifth core question of sustainability science this chapter will address the research question: *what systems of collaborative action are important for meeting common sustainability challenges in Gunnarsbyn?* While specific practice can be seen as important accomplishments on an individual level for sustainability, these also contribute to form strategies and culture around tourism practice that can prove important for sustainability of the community as a whole. In this case study common opinions of what the tourist hosts want to achieve for their community and become known for as a destination is the structure that formed reinforcing relationship in most of the qualitative systems dynamics modeling (figure 7).

Addressing core question of sustainability science nr 5:
What systems of incentive structures – including markets, rules, norms, and scientific information – can most effectively improve social capacity to guide interactions between nature and society toward more sustainable trajectories?

(Kates et al., 2001, p. 642)

The tourist hosts make use of the community in every way possible, although agree that the possibilities are not many. Through using local products and services, they are cooperating in their practice for the good of both the environment and the community.

Love explained that cooperation was a part of his business plan from the beginning. Thus cooperation is crucial for him to be able to sustain his company. Thus, he needs to cooperate to businesses in different parameters, locally in the community, regionally and sometimes even nationally. The idea was a mobile adventure experience company that would be able to produce service for other companies. Today Love works as a subcontractor for large companies. “This accounts for about 30% of our work today [...] I cooperate with 150 other companies, that means that I can provide a wide range of things in many areas. I buy service from my colleagues, which means that they buy service from me, we help each other out to be able to service big groups and support each other. That’s a very central thing”.

Maria and Kurt say that this is important to keep in mind if you arrive as a new part of the community, to think about cooperation, “so that you know where you fit into the puzzle”, “there’s no need to reinvent the wheel”. This dominating cooperation-instead-of-competition atmosphere that advocates taking care of current expertise is what makes the common culture in this tourism practice dynamic and even more in need of collective action because the population is too small for everybody to be able to succeed with a tourism business while “if you want to keep living here then tourism is actually one of the few types of businesses that you can start” (Maria). New people are important injections into the system in order to turn around the negative emigration trend while injection of new people might risk interrupting the norm in force.

Gunnarsbyn has in the past years had active participation in community projects of different scales. A resent accomplishment is an analysis of the local economy in Gunnarsbyn was made in 2010 and is a comprehensive way to grasp a basic understanding of resource flows in the community (Råne Älvards Utveckling, 2010).

The main results of this project were suggestions of three solutions that make the local economy more sustainable, which are now ongoing projects:

- 1) Agrocenter: use empty pasturages and houses in the area for food production
- 2) Secure Living (Trygghetsboende): building infrastructure in service and housing for elderly that provide a basis for new residential areas.
- 3) Destination Råne Älvdal: A Tourism networking project built on a basis of a previous networking project in 2007. It aims to coordinate all production and tourism products with common marketing, “to create our own identity and to find our own costumers, both local and tourists, that is highlight what is Råne Älvdal” (Tatiana).

The tourism project started officially only a week before the fieldwork of this thesis started. It is a new initiative but builds on a continuation of a previous tourism project. Tatiana manages the tourism project as an employee of Råne älvdalens Utveckling in Gunnarsbyn. The former tourism project reached over a larger area and included over 50 entrepreneurs while the current one is focused on the community of Råne Älvdal in the municipalities of Boden and Luleå.

Creating a common identity that all actors agree on is a main goal of the Råne Älvdalens Tourism networking project. In three years, when the project will officially be over the goal is a functioning system of local tourism industry that emerges from the outcomes of cooperation of entrepreneurs. Tatiana says that hopefully the project has by then made a difference, so that smaller project ideas will continue which are financed independently within the community.

Important efforts are happening, the development is heading to the right direction, but slowly [...] that means that we who are working in the field need to put down a lot of efforts to be able to see real results. With own organizations according to our own needs [...] we need to make sure that every little network follows the same track, and don't risk falling outside the system. We need to follow the existing red thread.

Tatiana

The community managed project reveals current initiatives that are commonly considered important for the future of the community and therefore becomes “a description of a society that its members, [...] as conditions of their competence – use and treat as known in common with other members, and with other members take for granted” (Garfinkel, 1967, p. 77). Considering this, the most important achievement of the project is “to know that we got people on board and that it's about common work” and “exploiting the internal expert opinion about the community” (Tatiana). This establishment is drawn from past tourism networking projects in the area and interviews with all actors that makes sure this project meets the needs of the community.

All of the interviewees are in some way involved with this project and other community initiatives. Lorentz is a member of the Boden municipality council for rural areas and has insight into what is needed for the sustainable development of Gunnarsbyn. His work in the council is an attempt to create a link between community level and municipality level that most of the interviewees considered lacking. He refers to ideas that in his view can harmonize well with the community Tourism network project and ‘Secure living’ project. He says that no time is better

than the present to invest in new infrastructure and planning in the community. Improvements can make Gunnarsbyn accessible, attractive and environmentally sustainable for inhabitants and visitors:

Compared to the situation now where there are two shops fighting for survival with no security, this is about sustainable development of our area. Far from everybody is on board with thinking about these things, nobody says it's a bad idea, but people are reluctant to build new buildings, so it's easy to think 'yes well we can think of that next time we are building' or 'that seems expensive'. There is nothing that is too expensive today. I don't see costs as a limiting factor in anything, absolutely not! Because if the costs steers everything that you do, there is no reason to even recycle, because it's not for the money, it's for being able to breath for 50 years more without gasmasks.

Lorentz

To be in the position to say that costs are not significant must be regarded as a strong argument for sustainable development. It cannot be said about all rural contexts globally that economic limitations can be made insignificant (Daly, 1996). This can rather be regarded as a common condition of the NEPs. The problem does not lie in lack of money, rather the distribution. Therefore economic development needs to make sense in the local context. As an example, construction of a hydropower station in Råne river has been rejected many times by local organizations, at the same time as it is still advocated for as an important tool for development by the government. The question must be raised: why strive for creating importance for industries that do not make sense locally when you can with much less inputs exploit the river in a manner that makes sense locally and can also benefit national level (e.g. making the historical significance of the river a tourist attraction).

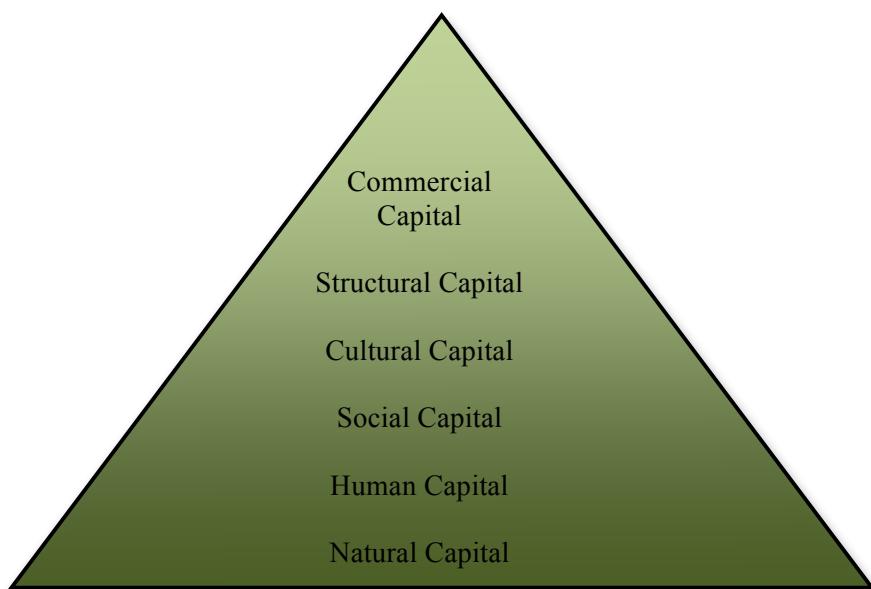


Figure 6: The different kind of capital that compiled make community capital. These are non-static energy flows that are contributing or degrading but all build on the conditions of natural capital, which functions as a limiting factor for all capital. Adopted from Callaghan & Colton, 2008 and Daly, 1996.

All this means that today there are important initiatives to maintain a kind of *community capital* that according to them is grounded in natural capital (figure 6), with the goal to increase well-being of all stakeholders in the community. Accordingly, “a community will not flourish in the long term if growth in one form of capital is continuously at the expense of capital in another form. A resilient community is one that finds the appropriate balance of capital within a particular community context. This does not mean, however, that the balance is static” (Callaghan & Colton, 2008, p. 938-9).

A common understanding about giving attention to each of these capitals came up repeatedly in the interviews and a main goal emerged: *to be able to continue to work and live in the community*. In working towards this goal they are willing to be very flexible and adaptable which makes the community more resilient to external shocks and less dependent on changes in the larger system. Furthermore, disturbances have been proven to create a reaction of opportunities for innovation and re-organization for development (as discussed by Folke, 2006). For example the lack of incentives for common marketing of destinations on the national level forced the tourist hosts to create their own commercial capital with marketing their companies on their own or in community cooperation.

“In the rural areas you need to be a part of maintaining the infrastructure” says Tatiana and adds that if they can establish a functioning system with managing tourism locally and together attract more guests then they will be able to see direct effect in the community. Thus, if there is a lack of interest from the outside, the interviewees evaluate and act on their own needs in a way bypassing the national system even though they accept that they are dependent on the functions of that system. Tatiana says that the tourism networking project is a fresh attempt to a bottom-up approach built on the support of the previous tourism network project which according to several of the interviewees made a difference in tourism networking. But since the project did not continue at the time there has been stagnation in the development of community cooperation the last 6 years. In order to avoid it being only a “once successful collective action” (as discussed by Poteete et al., 2010, p. 218), the current status is to form working groups among the entrepreneurs focused on specific needs and to work with the municipalities who share Råne Älvdal so that all actors take equal responsibility in infrastructural issues.

The current cooperation projects in Gunnarsbyn are generally seen as a positive input for tourism development and empowering for the future of the community by the interviewees, although they are considered small in scale and develop slowly. The main problem involved with making cooperation more effective is thus a detected inertia in the national system that disempowers local incentives for development in the northern periphery. The problem expressed by the tourist hosts can be connected to the ongoing argument of sustainability scientists, sustainability cannot be substituted for by policies that promote gross national product growth, rather the incentives of policies need to be questioned (e.g. Arrow et al., 1995, Kates et al., 2001).

The variables that have been identified to influence collective action for sustainable community development among the tourist hosts in Gunnarsbyn are that: i) there are few tourism actors operating in the area; ii) they identify themselves with the area; iii) they belong to a small community and perceive sustainability challenges of the community as common challenges and; iv) their tourism companies specialize in different kind of service, which facilitates cooperation in stead of competition.

4.4 Net benefits

This chapter aims to bring together the findings of the qualitative systems dynamics participatory modeling and the analysis of the previous chapters to explain the role of tourism in the dynamic interactions in Gunnarsbyn's social-environmental system. The assessment of net benefits of current structures in tourism practice in Gunnarsbyn and how these in turn empower individuals in their tourism practice and in adopting to sustainability challenges of the community is thus grounded in the accounts of Kurt, Maria, Love, Tatiana, Lorentz and Carina.

Addressing core question of sustainability science nr 1:
How can the dynamic interactions between nature and society – including lags and inertia – be better incorporated into emerging models and conceptualizations that integrate the Earth system, human development, and sustainability?

(Kates et al., 2001, p. 642)

The qualitative system analysis participatory models define the question: *how does tourism practice contribute to making the community of Gunnarsbyn sustainable?* The question does only address the perspective of tourist hosts and therefore does not describe what the net benefits are for other stakeholders in the community. Although it is important to keep in mind that the community is small and the interviewees also belong to other stakeholder groups. They are also representatives of residents, those that have other jobs in other towns, and as active in local politics.

The qualitative system analysis models that the tourism hosts were asked to draw and short summaries of their argumentation are presented in appendix III. These have been summarized in figure 7 and their main components (in italics) and their relationships are explained in the text that follows the figure.

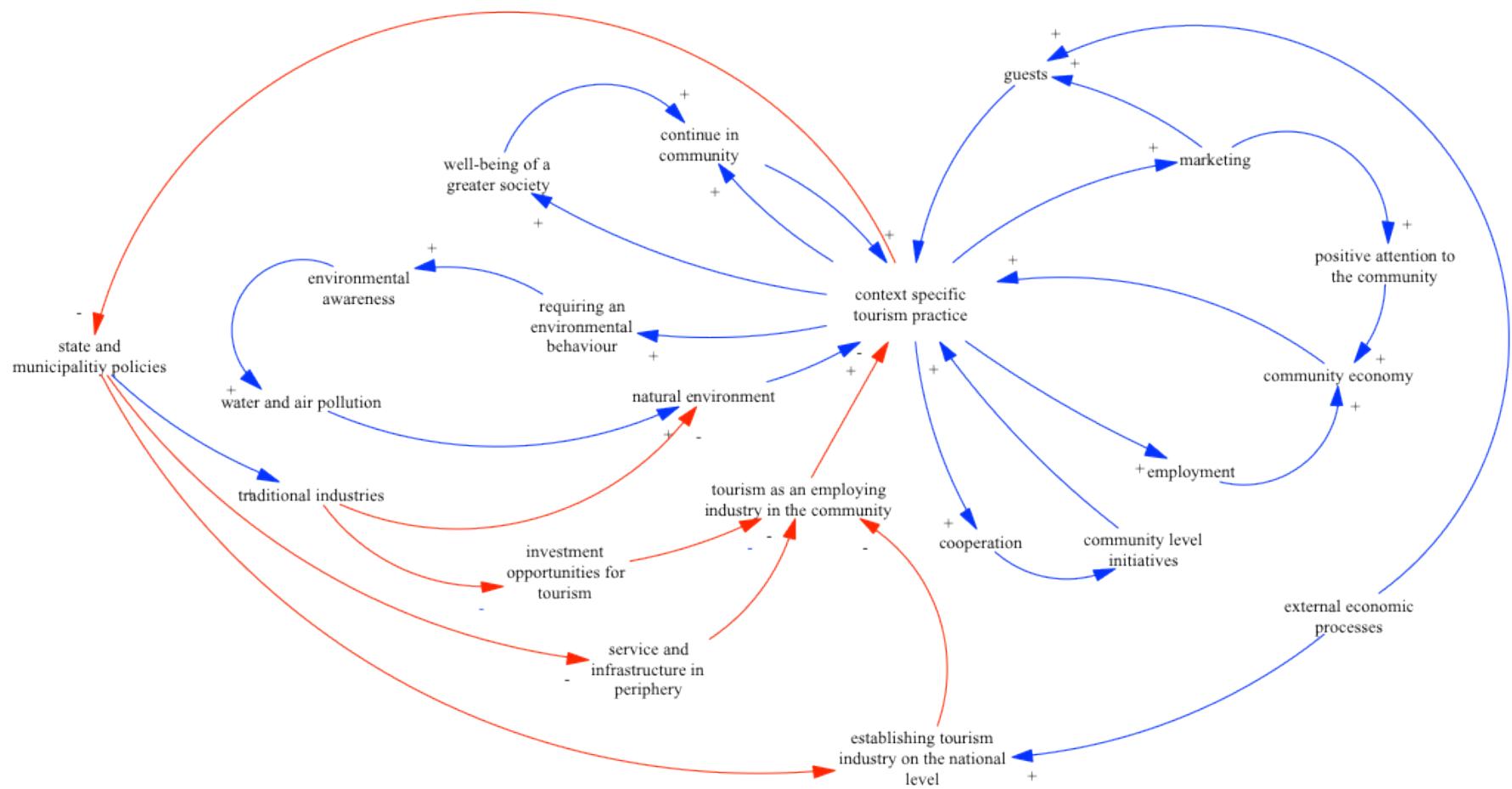


Figure 7: Results of the participatory qualitative systems analysis.

All the interviewees agree that the most important competing power of Gunnarsbyn as a destination is free movement through the vast and relatively unspoiled *local natural environment*, combined with low population density. The small-scale nature of tourism practice has no measurable impact on the local environment and they want to do their best to keep the impact neutral. Their guests come from outside the local community, live in other contexts and are, most of them, not familiar with the NEP environment. Therefore the companies fulfill a certain need by providing nature guidance, or *access to experience the nature*. Carina furthermore sees her camp as a kind of access point where environmental goods are transformed into social goods, contributing to *well-being of a greater society*. Fulfilling the needs of the guests also has a positive feedback on their own motivation to *continue working in tourism* and to *continue living in the community*. The free access to territories creates a common informal code of conduct in the tourism practice, which translates into *requiring a certain behavior in the nature* of both tourist hosts and guests. An effect of that is a opportunity to impact on *environmental awareness* on a global level, which eventually will pay off in positive impact on external sources such as *water and air pollution*. Many threats were mentioned that are directed to the vulnerability of the *local natural environment*, which in turn threatens the main attraction of the destination.

A core problem is involved with sharing the natural resource with *traditional industries*, mainly Sveaskog. Positive features of Sveaskog is that it is providing access for tourism companies to do their work on a land that they don't own and have active policies on forest preservation. Nevertheless Sveaskog also intensifies limiting factors that makes the tourism sector in the NEP context vulnerable: i) it belongs to the group of *traditional industries* in NEP contexts, along with mining, hydropower and agriculture, which are prioritized and make tourism vulnerable in *external economic processes* and in *governmental policies*; ii) tourism companies face investment difficulties because potentials of their own worth are not realized in loan institutions. Sveaskog increases this insecurity because properties on leased land cannot be used as guarantee for further investments and; iii) Sveaskog is obliged to cut 5% of their forest holdings every year which makes logging a direct threat to making a living out of the unspoiled nature. The environmental impact of logging is not often criticized because it has been done in the same way for centuries, but "the difference is that now we are supposed to sell the experience of the forest for a lot of money to people that have travelled far" (Lorentz). Lastly, Sveaskog also threatens their ability to *continue working in tourism* directly by having the authority increase the rent for the land or sell it at any time.

It is a common standpoint in the interviews that the *governmental policies* are too standardized to make it easier for tourism companies to expand by limiting their possibilities to make *investments* and *employ people* but rather put efforts into *traditional industries* that are on decline. When jobs are outsourced to technology and foreign companies, "the effect is fewer and fewer people that are reliant on the industry, which naturally leads to a demand for other industries to be reliant on" (Lorentz). It is true that tourism creates jobs locally, but there two problems with that reality: i) there are attitudes in the community that say that *working in tourism* is not sufficiently economically stable and people would rather choose to be employed by traditional industries; ii) employment tax is too high for small-scale tourism companies to be able *employ* people and; iii) Governmental policies are centralized in employment policies. Even though companies need to employ people and want to create jobs locally, they are not able to. This way the community is very interwoven

with creating prerequisites for working with tourism, and the responsibility for supporting the *community economy* is common and reciprocal. Little attention in *service and infrastructure* reaches the community from governmental and municipal efforts even though they are paying the same amount of taxes. Despite of active engagement in dialogues with politicians for influencing decision making in *state policies* have not been fruitful. Therefore *community level initiatives* are important to obtain and maintain *infrastructure and service* themselves.

The tourist hosts need to put much work into *marketing*, not only to attract guests but also to bring *positive attention to the community* so that more people would want to move there. “Tourists bring changes and we also see a reason to make the area more attractive” (Tatiana). *Marketing* is the fuel needed to drive tourism, but lacking tools for common marketing from government and municipalities creates more need for *cooperation* on the community level. A dilemma in working in tourism in this context is thus, should you try and meet all the needs of the guest yourself or do you try to find your niche and rely on *cooperation*? Two forms of cooperation exist to some extent in the community: companies who offer similar things divide the guests between them and make money together and; actors that offer different things cooperate in order to provide a fuller experience between them. All interviewees said that *cooperation* is among the most important factors of tourism development in their context, at the same time as they are also reliant on contacts with bigger tourism actors outside the community. These small-scale networking are functioning relatively well today but are still vulnerable to the explained external shocks.

The variables that have been identified to influence sustainable community development in Gunnarsbyn include both broader contextual variables and microsituational variables. Although no distinction between the two variables was made when questions were posed in the interviews and participatory modeling, this came naturally when the tourist hosts solved the task. This is in line with the method designed by Poteete et al., which advocates that “behavior is more directly influenced by microsituational variables, which in turn are more influenced by the broader contextual variables” (2010, p. 220), while analyzes may also make a direct link between broader context and individual behavior.

The tourist hosts did easily identify relationships between microsituational variables and broader contextual variables within their socio-ecological system, which were either balancing or reinforcing and can be interpreted as *net benefits*. The main driver of reinforcing relationships is the desire to sustain the community and the common interest to continue living in the community and working with tourism. Together the tourist hosts create community capital in projects and initiatives in tourism that have *net benefits* in the community although they agree that these are small in scale and develop slowly. These benefits support the system but are not very efficient.

It can be concluded from the empirical data that the people in this community have a high propensity to conditional cooperation and, in their perception they have possibilities of producing shared sustainable benefits for their community. They are confident in that the other tourist hosts in the community want to cooperate, and agree that main dilemmas in their practice involve communication with national level or global actors. Thus, they support the growing acceptance of a behavioral theory of human action, that “Individuals facing dilemmas, who learn from experience and adopt a norm of conditional cooperation, achieve levels of cooperation that increase

over time—if a sufficient number of conditional cooperators are present” (Vollan & Ostrom, 2010, p. 924). This can be connected to Vollan and Ostrom’s conclusion that “if enough individuals initially cooperate, they slowly obtain benefits from the [natural resources], and levels of cooperation grow” (2010, p. 924). In the projects that are facing them right now, each one of the interviewees are leaders for increased cooperation and increased sustainability of the community, and are slowly changing the acceptance in the rest of the community to manage and maintain the common natural resources locally.

This does not mean that they are immune to disturbances like distance to market, lack of infrastructure and service and an aging population. The national level system still makes the rules for their work which could be interpreted in several ways: i) as rules established by an external authority that “crowd out” the group’s motivation to cooperate (Vollan & Ostrom, 2010, p. 924) and makes them pessimistic about the future of the community; ii) as a systematic lock-in that disables the community’s resilience to handle shocks or expand in their work, “My hands are tied to the system that I work within” (Love); iii) as a system that provides opportunities for their work and cooperation in terms of e.g. financial support for development projects, leasing of land and free access to use land for tourism and own recreation activities. Adding to the complexity of things, the answer is indeed that the national level system provides all of these three and in the future vision deducted from the interviewees’ accounts, sustainable tourism goals cannot be disconnected from the goal of sustaining the community.

If the prerequisites are made, then things start to happen, then I all of a sudden I could have 15 employees that work and live and spend their money in this local economy and the wheel starts turning. People move here, there would be more visitors etc. and we can build a sustainable future on the grounds of long-term perspectives. The way it looks now is that they chop the trees and move them away, they dig up the ore and move it away, and the people move away as well. Supporting these bigger companies does not help the community in any way, the house across the street will continue to be empty.

Love

5 Conclusions

The main contribution of this thesis was to apply qualitative systems dynamics to the theory of conditional cooperation for sustainable use of common pool resources (adopted from Poteete et al., 2010). The main research question was discussed: how do tourist hosts in Gunnarsbyn perceive their possibilities of producing shared sustainable benefits for their community?

In order to explain how tourist hosts understand sustainable use of common natural resources in their context, the analysis included accounts of i) their current practice, as a description of an ongoing practical accomplishment in reaction to both local and global sustainability challenges; ii) the vulnerability involved with tourism practice in this place and; iii) their dependence on common pool resources. It became clear that vulnerability is involved with the entire complex system of the tourist hosts' choice of lifestyle and practice. The tourist hosts did not indicate many difficulties with sharing common pool resources and running sustainable businesses. Examples were made of how complicated sustainability challenges can often be tied down to manageable levels of individual accomplishments. The common interest in hosting according to the interest of nature contributes to creating a norm and a common goal with their work: namely to make it possible to continue living in the community.

The variables that were identified to influence collective action for sustainable community development among the tourist hosts in Gunnarsbyn are mainly: i) few tourism actors operate in the area; ii) they identify themselves with the area and its natural capital as a main condition for both quality of life and competing power of their tourism activities; iii) they belong to a small community and perceive sustainability challenges of the community as common challenges and; iv) their tourism companies specialize in different kind of service, which facilitates cooperation instead of competition.

Standardization and centralization in national and municipal policies are considered the main reasons for why net benefits of cooperation is developing slowly, and are thus identified as the main limitations for sustainable development of this peripheral community, and for sustainable development of tourism as an employing industry in this area. The reaction to this is twofold: i) Culturally developed practice that on its own creates a feedback relationship with natural resources, which functions as the main driver of their system and; ii) important community initiatives based on community capital that can be conducted without assistance of external politics.

The microsituational and broader contextual variables that were accounted for by the interviewees proved relevant to make the assessment that tourism can function as the empowerment needed to activate drivers for sustainable development of Gunnarsbyn on a local level. This includes both individual agency and cooperation around community capital needed to make space for a new kind of context driven rationale driven by the desire to maintain community. A political ecology approach of micro social constructionism became relevant to the core questions of sustainability science in the way it puts personal accounts of own work in relation to sustainable development of communities. Seen through a lens of ethnomethodology (Garfinkel, 1967), sustainable development in practice is construction of practice where everyday routine is accomplishment towards a common goal has to be actively maintained.

In conclusion, the tourist hosts do not see their situation of sharing common natural resources as a dilemma when communicating with other actors within the

community. The dilemma situation is visible when communicating their needs to the larger system. The problem does not lie in lack of money to improve infrastructure, rather the distribution. The community norm seems to be supportive of a lifestyle of common commitments to deal with long-term sustainability challenges.

The conclusions are applicable to other Northern European areas. Suggestions for further research thus include case studies of other peripheral areas in Northern Europe and a comparison of their common strengths in developing cooperation for use of common natural resources. In order to fulfill this, other stakeholder views need to be included. The policies that are mentioned in this study could be put in context with different stakeholder views, where it is elaborated on how the policies have changed livelihoods in peripheral areas in Northern Europe.

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Appendix I: Interview design

Questions

Can you start by describing your work/company?

How do you define your community geographically?

How do you define sustainability?

How is that perspective applicable to tourism practice in your area?

To what extent do you see your everyday work as sustainable for your society?/ yourself?/ your physical environment?

What goals does sustainable development include to you? Here?

Can you describe the system that your work is a part of? (*I provide a blank sheet and pens in different colors and show briefly a CLD of the system that defines their context in my perspective*)

- What perspective does it include?
- What are the drivers of the system?
- What is the relationship between local and larger societies?
- What are the most vulnerable components of the system?
- What are its most resilient components?
- What strategies are best to meet the challenges involved with the system?

What is the significance of your work for this area?

What is the significance of this area for your work?

Would you consider doing this kind of work somewhere else?

How would your practice be different if you were working somewhere else?

Can you mention 3 things that you do differently from other neighboring small scale tourist hosts?

Can you describe how you have developed your way of working with specific things in your average work day? 1 – 3 examples.

How can you explain these developments? – local effect or pressure from the outside?

Why have you chosen to maintain this certain practice?

Do you want to make changes? To your own practice? To the environment of the practice?

Intervjufrågor

Kan du börja med att beskriva din verksamhet?

Hur skulle du definiera ditt samhälle/närområde geografiskt?

Om hållbar utveckling

Hur skulle du definiera hållbar utveckling?

Hur kan man spegla konceptet i arbete inom turismnäringen i ditt närområde?

Vilka mål innehåller hållbar utveckling i ditt närområde? (både i turismnäringen och allmänt)

Om systemet

Hur skulle du beskriva det system som turismnäringen och din verksamhet befinner sig inom?

(*Jag tillför papper och penna och visar en system analys som exempel*)

- Kan du identifiera några problem kring målet: turismnäringen gör bygden hållbar
- Vilka perspektiv/komponent innehåller det och hur påverkar de varandra?
- Vilka är de mest begränsande komponenten?
- Vilka är de mest sårbara komponenten?
- I vilka förhållanden befinner sig de mest hoten?
- Vilka är de mest anpassningsbara komponenten?
- Vilka strategier är mest relevanta för att möta utmaningar i systemet?
- Vad är mest relevant att veta om din omgivning?
- Vad är relevant att veta om förhållanden mellan ditt närområde och det globala?

Om verksamheten

På vilket sätt är ditt arbete betydelsefullt för närområdet?

På vilket sätt är närområdet betydelsefullt för ditt arbete?

Kan du tänka dig att göra denna typ av arbete om du bodde någon annanstans/ i en annan omgivning?

Skulle din verksamhet och ditt arbete se annorlunda ut om du arbetade någon annanstans? Hur?

Om arbetet/yrket

Kan du nämna 1-3 exempel på praxis (specifika saker) som du, under en vanlig arbetsdag, gör annorlunda från andra angränsande turistvärdar (som arbetar på en liknande skala)? (om inte annorlunda, nämna 1 – 3 exempel).

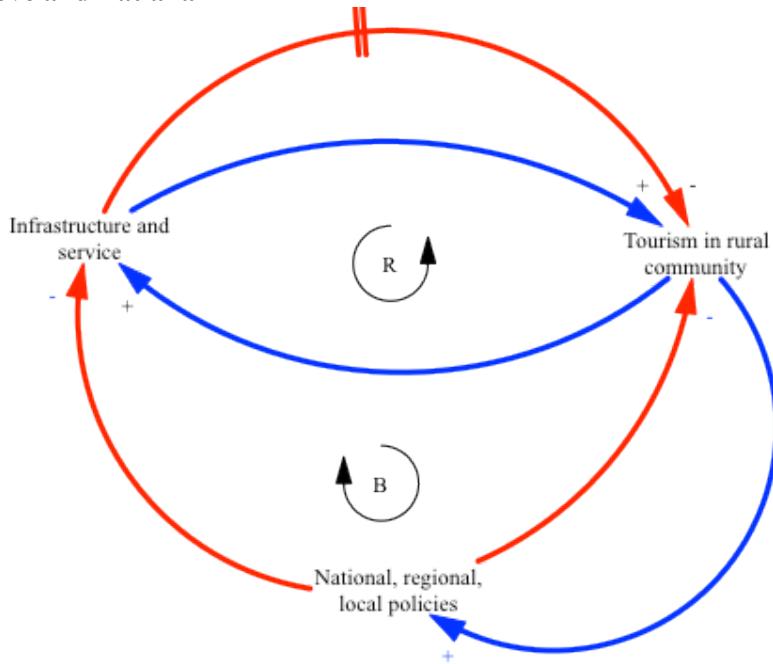
- Kan du beskriva hur du har utvecklat ditt sätt att arbeta med dessa specifika saker?
- Kan du förklara varför dessa har utvecklas så? (Är det på grund av lokala sammanhang eller påverkan av yrket utifrån?)
- Varför har du valt att utveckla/behålla denna praxis?

Vill du se förändringar? Vill du förändra sättet du arbetar? -din verksamhet?

-Yrkets system?

Appendix II: Results of participatory qualitative systems analysis

1) Love and Tatiana



Tourism in a rural community is an injection for community development in itself, in terms of:

- Life quality and better health
- Local consumption
- Long-term sustainability
- Lifestyle
- Available jobs
- Local export business

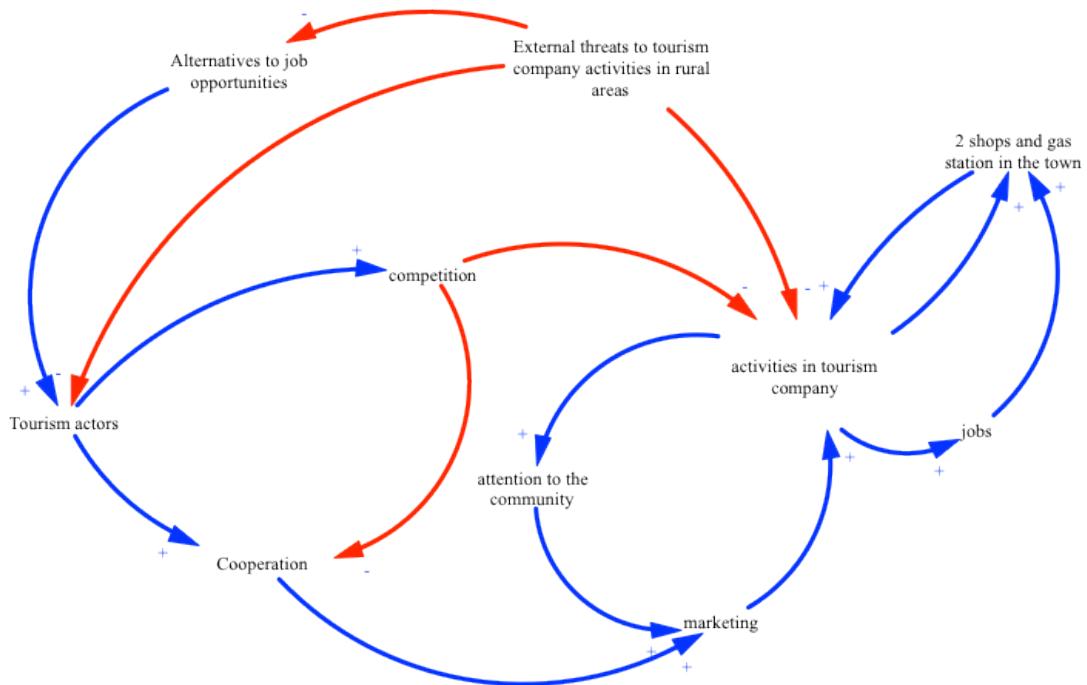
These things support better *community service*, which in turn supports a more sustainable development of tourism, therefore creating a reinforcing loop between these two factors. Love gives examples of three main community structures that could be used as role models for improving service in the community and strengthening the reinforcing loop. *The state, regional and local regime (statsmakten)* is not officially a part of the system because of the collection of commitments that it does not make to provide conditions, namely:

- No injection (intervention) to create better conditions, prerequisites
- No sufficient changes to an old fashioned system
- No sufficient reflection on tourism as an industry (it is too poorly defined)
- No capacity to sustain rural communities
- No support provided to live in these areas
- No efficient rural politics, centralization is supported and people are moving away.

This way the systematic lock-in has direct negative impact on both work within the tourism industry in peripheral areas and the infrastructure and service prerequisites for living in the area. The latter also has delayed effect on the conditions for practicing tourism in the area. This balancing loop could be read as a pure reinforcing loop if these injections were made from the regime as living conditions and working conditions improve, the community is more attractive for both visitors and people that want to live there, which eventually leads to the

industry giving more back to the regime.

2) Kurt and Maria



Tourism company activities in this rural community have a positive impact on *the shops in town* (in this case there are only two grocery stores and a gas station), which in turn function as an input for tourism activities to some extent.

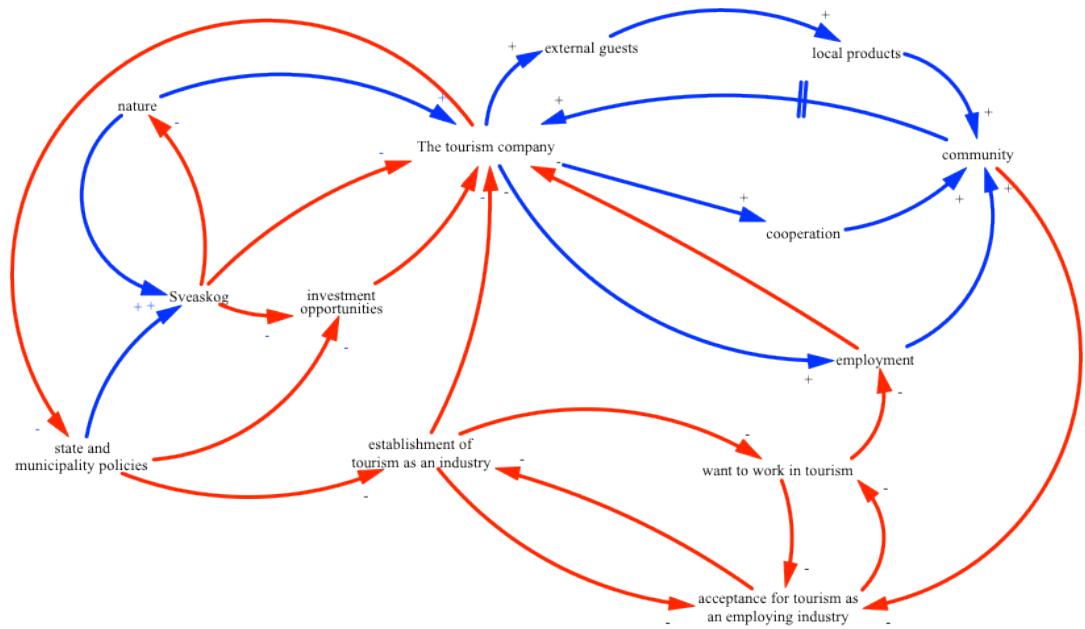
The activities may also provide *job opportunities*, although this is very limited. More jobs, although few, eventually create a reinforcing relationship with the shops.

External threats to practicing tourism company activities in this rural community are several:

- Instable state of the economy visible in e.g. high prices in gasoline and costumers' willingness to pay
- Lack of transportation communications, mostly flights
- Lack of attention to rural areas in national policies visible in centralization

The first two of these have direct impact on the affordability of the *tourism company activities* while the third both direct impact on business management and indirect impact through centralization policies, both on a national level and municipality level, which lead to that *fewer people are living in the area that would work with tourism* and that there are *fewer alternatives to work in the area*, tourism is one of the few types of businesses that you can start if you want to live in this area. More people working in tourism creates a risk that tourism companies are *competing instead of cooperating* as the population basis is too small for everybody to be able to be successful with providing the same service. Having said that the current situation is that the few tourism actors in town are cooperating because they are providing different kind of service and can through that benefit from each other's *marketing*. Marketing is the most important factor in order for the tourism companies to be successful. Better quality in tourism activities also creates a reinforcing loop with marketing on its own through *bringing positive attention to the community*. Competition can be both good and bad for tourism company activities, as it makes you do a better job but it also means lack of creating expertise which results in less quality, the latter becoming more of a dominating factor.

3) Lorentz

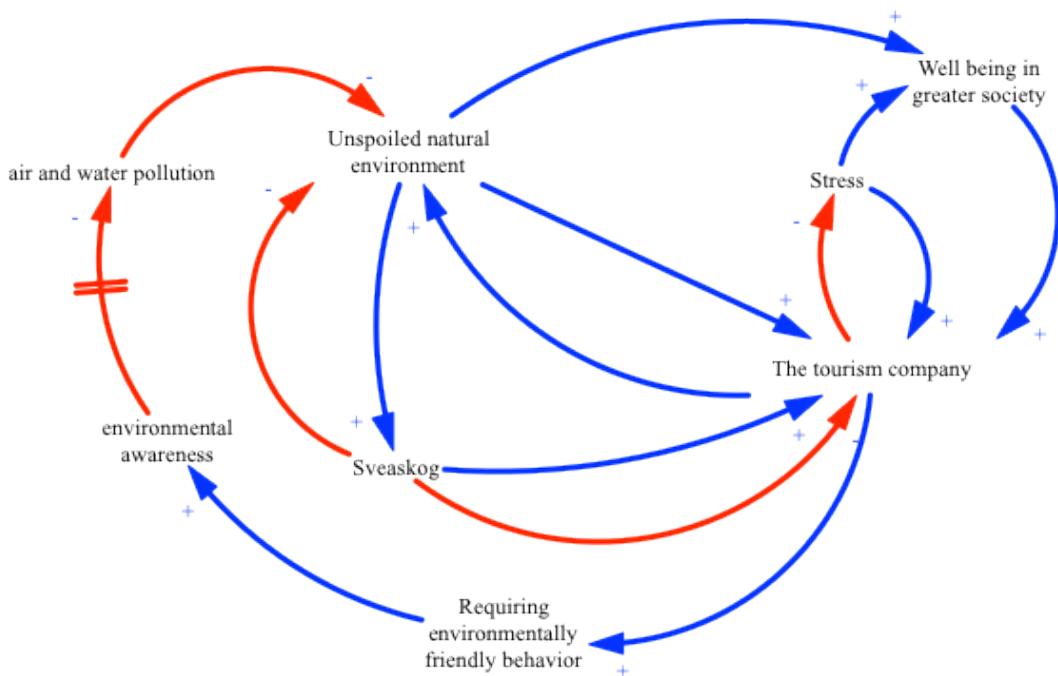


The tourism company contributes to the community in three main ways. Firstly through *employing people* from the community and through participating in *cooperative activities*. The small size of the company also creates the need for employing or cooperating with other tourist hosts in order to provide the service that is needed. Thirdly, they contribute through *buying local products* especially because they are not taking costumers from the businesses in the community, their costumers come from the outside. These three things mean both economic growth and population growth for the community which eventually functions as a supporting prerequisite for the company in terms of products and service for both the company and visiting guests.

More problematic aspects of the employment in tourism are rooted in the *acceptance tourism as an employing industry*. This is a limiting factor that reaches the tourism company both through a) attitudes in the community directly simply because it is regarded as new and not established; b) through the fact that people are reluctant to *want to work in tourism* because of economic uncertainty and difficult working hours. This is reinforced in the larger problematiques in *establishing tourism as an industry*, caused by limiting *policies on national and municipality level* explained by lack of credibility in the sector and lack of external sources such as EU subsidies which are granted to other industries that are at the same time considered to be in decline, such as agriculture and forestry. The tourism company also faces lacking *investment opportunities* and credibility for taking loans which is also rooted in policymaking deficiencies.

Thirdly deficiencies of policymaking reaches the tourism company through *Sveaskog* which is by large majority owned by the Swedish state. These threats are detectable for the tourism company in three main ways: a) limitations in investments because the tourism company cannot use properties as guarantee since they are built on leased land; b) by threatening the state of the natural environment which is the prerequisite resource for both the logging industry and the tourism company activities; c) Even though there is a lack of power over the land that the tourism company has built on, the access to land through *Sveaskog* is the main prerequisite to practice tourism activities. The different deficiencies make it more difficult for the tourism company to establish an economically sustainable business, thus giving less back to society in terms of multiplier effect or community improvement.

4) Carina



The prerequisite for the *tourism company* is its location in relatively unspoiled natural environment and through designing all activities in a manner that is considerate of *the local natural environment*, with limited use of external materials and electricity free, it creates a reinforcing feedback loop between the two factors because of this nature of the practice and because they are providing access to this natural area which people that are their guests might not be able to reach otherwise. Therefore the biggest threat is external *air and water pollution*, an external factor outside of the system boundaries and untouched by the actions in the tourism company.

The environmentally friendly concept of the tourism company furthermore feedbacks back to the natural environment in two ways. Firstly, by *requiring a certain behaviour* of their guests when they are at the camp, they are contributing to *environmental awareness* that the guests take with them to some degree and apply in the rest of their lives, eventually leading to *decreasing air and water pollution*.

Also, providing a place where people can release *stress* contributes to *well being in greater society*, which through positive feedback to the company creates increased will to sustainable practice and an increased will to stay in the community. The positive experiences of releasing stress also give direct feedback to the company in form of improvements, encouragement and friendships.

While Unspoiled nature serves as a resource for the tourism company, it also serves as a resource for Sveaskog's logging industry. Sveaskog therefore represents threat directly to the environment and also threatens the continuity of the tourism company activities through land ownership. They may decide to either start logging close to the camp destroying the attraction of the destination or the may decide to sell the land that the camp stands on. Sveaskog is also a prerequisite for the company activities because of the possibility of leasing the land.